

IN THE SPECIFICATION

Page 3, line 3

not possible to apply here. When switching transistor 88 is on current flows from the plus DC supply through DC blocking capacitor 9 to the series resonant circuit consisting of inductor ~~9~~ 8 and capacitor 10. The load is connected across capacitor 10;

Page 3, line 15 and line 20

Referring now to Figure 2, electrical power enters from the AC power line on lines 1 and 2 to the AC to DC converter module 3 and leaves on lines 4 and 5 as plus and minus DC power. Line 5 is considered the common of the ballast circuit. The AC to DC conversion module 3 can be any form of public domain conversion system. In this instance, a 4 diode bridge is depicted. The DC voltage and current is further conditioned and regulated to correct the power factor and harmonic distortion with respect to the power line by regulator and/or power conditioner 86 which could be any form of public domain regulator such as the method depicted in my patent No. 4,277,728, now expired. And/or is used as in some applications only power conditioning is needed and in other cases only regulation ~~in~~ is needed. A single circuit does either or both but the one that does both is more expensive to manufacture.

Page 5, line 6

Direct current enters at the input 85 and flows through diode 83 to the DC bus 4. Typically this DC voltage will be much less than the peak AC line voltage so regulator 86 will be of the boost type to present a constant voltage on line 87. Under DC operation this will not be a problem for the regulator circuit as the control module, sensing the absence of the AC line input, will reduce the power output considerably and thus the power drawn by the half bridge inverter 6. During this time the charging circuit 84 is disabled as the voltage at its input and output is essentially the same. When the AC line voltage is present the DC bus voltage is used as the source for the charging circuit 84 that returns current to the direct current input 85.

Page 5, lines 13 and 19

Referring to Figure 3 the connection for the electro-luminescent or flat panel lighting device 31 is shown. The two points X and X are connected in Figure 3 where the X and X's are to replace the circuitry to the right of the X's in Figure 2. Inductor 8 is connected in the same manner, but capacitor 10 of Figure 2 ~~is~~ is replaced by the electro-luminescent panel itself, 31. The panel is, in fact, a large capacitor, therefore, it serves not only as the load, but as the resonant capacitive element. The DC blocking capacitor of Figure 9 is not needed since the load itself is a capacitor. The amplitude and phase angle of the voltage across the panel is fed back to the control module the same as before via line 21. The current in the panel is measured by the voltage drop across resistor 32 in the same manner as in Figure 2 via line 22.

The load current is sensed by sensor 32 of Figure 2 and is fed in via line 22 to capacitor 106 which is part of a voltage doubler consisting of capacitor 106 diode 108 and diode 74. A doubler is used so current sense resistor 32 may be reduced in size by a factor of 2 thus reducing any heat loss in the resistor. The doubled voltage is filtered by capacitor 66 and resistor 65 and presented to analog input at Pin 1 via line 67. The voltage representing the heater current is fed on line 73 to doubler consisting of capacitor 105, diode 107 and diode ~~74~~ 64 and filtered by capacitor 76 and load resistor and fed by line 77 to the microprocessor. Local control of the output power may be adjusted by potentiometer 70 of Figure 2, the wiper of which is connected at input 17 via line 28. Resistor 71 in series with potentiometer 70 sets the minimum output level. An analog input voltage from the photocell is presented by line 27 to input at Pin 18.